

Official Worldwide Olympic Partner



50 Hz

2008/5

HD Integrated Camera

AW-HE100

**HD Integrated Camera with smooth pan-tilt moves
and great picture quality**



Shoot in HD and Standard definition, with Powerful, Integrated HD/SD Camera ideal-

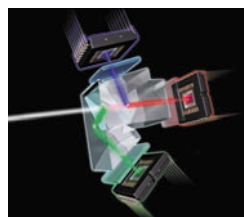


Smart integrated design and high performance pan-tilt head

Delivers highly-accurate remote image capture with fast, precise, ultra-smooth pan-tilt system and a wide range of movement.



Production quality 3CCD system & 19-bit Digital Signal Processing (DSP)



Equipped with Panasonic's exclusive high-precision 1/3-inch 3CCD and 14-bit A/D Converter & 19-bit Digital Signal Processing (DSP), the AW-HE100 shoots crisp, high resolution, high definition images.

HD Integrated Camera AW-HE100

- Offers HD/SD formats with the ability to switch between 1080i, 720p, 576i, and 576psF.
- The camera's stylish design blends in with a wide range of locations and decor.
- Standard accessories include a wireless remote for control of up to four cameras. Wired RS-422 control is also supported.

A fast, versatile 13x High Definition zoom lens delivers great images

Superior video can be produced in a wide range of shooting conditions, thanks to the camera's HD zoom lens with a F1.6 aperture and a 32.5 mm (35 mm equivalent) minimum focal length.



easy installation and smooth operation. for a wide range of venues and applications.



Auditoriums/legislative halls

Delivers precise and intuitive camerawork in combination with a high performance control panel. Offers effective operation for applications, ranging from display of high definition images on large displays, to coverage of seats in legislative halls using the preset memory function.



Business setting

Easy installation even on ceilings or pedestal. Conduct high resolution, live video conference readily by using the cameras in combination with a live switcher.



Studio production

One-man remote operation of multiple AW-HE100 units is possible, so less space is required for tripods and operators. As well as saving space, this contributes to more efficient workflow in the studio.



School and other educational applications

A wireless remote control provided as standard accessory gives you command of up to four cameras. Even without specialized expertise, virtually anyone can easily operate the cameras and pan/tilt heads.



Indoor sports facilities

Providing 60°/sec high-speed pan and tilt, the AW-HE100 lets you precisely capture even rapidly moving subjects. Add to this wide pan/tilt range, enabling shooting from various angles, and you have the ideal camera for recording in gymnasiums, skating rinks, and other sports facilities.



High resolution monitoring

The smart and compact integrated design of the AW-HE100 will naturally blend in with any surrounding.

Please refer to **p.6-7** for details concerning system configuration examples.

Integrated camera with a smart design offering high resolution and smooth movement.



High resolution, high definition shooting

Compatible with four (HD/SD) video formats

On-screen menu-functions let you easily switch between 1080i, 720p, 576i and 576psF formats. What's more, simultaneous HD and SD output enables smooth transition from SD to HD production.

Compatible formats

HD 1080/50i, 720/50p

SD 576/50i, 576/25psF

Highly sensitive progressive 3CCD, excellent for shooting indoors

Delivers highly sensitivity, high S/N, and high resolution by employing the wide light collecting surface of 1/3-inch CCD.



Reproduces a bright and crisp image even indoors.

High definition, 13x zoom lens with auto and remote focus

An 13x, HD zoom lens with a fast F1.6 maximum aperture provides both manual/remote and accurate autofocus capabilities.



Integrated zoom lens developed for HD

14-bit A/D Converter & 19-bit Digital Signal Processing (DSP)

Equipped with the same Panasonic exclusive high-precision Digital Signal Processing (DSP) found in our high-end broadcast cameras, the AW-HE100 delivers rich, vibrant video quality (i.e. gamma correction).



Delivers beautiful, low noise images



Broad range/high speed/precise rotation movement

Wide-area pan-tilt and Smart Flip function provide versatile coverage

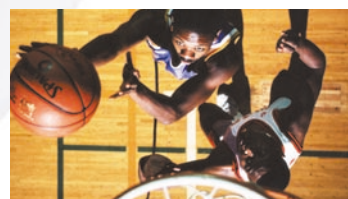
The AW-HE100 provides a wide range of motion, with a pan range of $\pm 175^\circ$ and a tilt range from $+210^\circ$ to -40° . The camera also includes a versatile, use selectable Smart Flip function to automatically reverse the vertical orientation of the picture to provide natural looking video, even when the subject passes directly under the camera.



Shoot from precise angles with broad range of movement

High speed, accurate movement unflinching captures the dynamism of sports

Has both high speed motion of $60^\circ/\text{s}$ and pan-tilt stop accuracy of $\pm 3'$ (0.05°). The camera accurately can track high speed sports such as swimming and skating.



Easily shoots the intense motion of sports

Shoot without disrupting the ambience with the silence of NC30

Operation is extremely quiet, with a noise level of just NC 30 (during $30^\circ/\text{s}$ operation), which is about as quiet as a library. This lets you achieve natural shooting results at weddings and in theaters and other locations where mood and atmosphere play an important role.



Shoot while preserving the natural ambience

Rich preset memory offering up to 100 positions

Various camera and lens position may be preset and memorized for easy recall. This is useful in situations where many fixed shots are required, and where non-technical personnel may need to operate the cameras.

- The number of preset memory positions will differ depending on the controller.



Easily switch between many positions



Easy installation/comfortable operation

Stylish body compatible with installation on surfaces and ceiling

Integrated smart design (pan-tilt, zoom lens, and camera), for simple cabling and installation on ceilings or walls.



Wireless remote control supplied as standard

A full-featured wireless remote for control of up to four cameras is included as a standard accessory. The AW-HE100 is also compatible with current Panasonic RS-422 wired remote control systems for easy operation and adjustment.



Range approximately 10 m (with no obstructions). However, the distance may become shorter if direct sunlight, light from a fluorescent lamp or light from a plasma display falls on the AW-HE100 main unit's IR receptor.

Operate multiple cameras at once. Supports system architecture built using existent equipment.

Other Peripherals



(Rear View)

Compact Size Controller AW-RP555*

Compact units offering full camera control.

Controls up to five cameras and pan-tilt heads. Fully control set up and picture quality using the camera menu. Set positions appropriate for each setting as each camera is selected with up to 10 preset memory positions.

● Power Supply AW-PS505A is required.

Power supply	DC12 V
Power consumption	Approx. 9.0 W
Dimensions(W x H x D)	210 mm x 58 mm x 177 mm
Weight	Approx. 1.4 kg
Accessories	Rack mounting adapters(5U) x 2, Mounting screws(M4 x 8 mm) x 4



(Rear View)

Pan-tilt Controller AW-RP400

Ready for full-scale video production applications.

Enables precise control of up to five cameras with intuitive joystick/seesaw operation. You can also connect it to an AW-CB400 remote operation panel for controlling cameras.

● A protocol converter AW-IF400 and Power Supply AW-PS505A are required to use this unit.
● Tracing memory function does not work for the AW-HE100.

Power supply	DC12 V
Power consumption	Approx. 13.0 W
Dimensions(W x H x D)	320 mm x 85 mm x 266 mm
Weight	Approx. 3.8 kg
Accessories	Zoom switch x 1, Plug(D-SUB 15 pin)for tally/INCOM system x 1 set, Rack-mounting adapters x 2, Mounting screws(M4 x 8 mm) x 4

Power Supply AW-PS505A

Supplies electricity to control panels and live switchers.



Power supply	AC120 V/AC220 V to 240 V **
Power consumption	Approx. 76 W
Dimensions(W x H x D)	132 mm x 51 mm x 275 mm
Weight	Approx. 1.6 kg
Accessories	DC cable with 4-pin Canon connector(for AW-RP400.etc):Approx. 2 m DC cable with ø 5.5 plug(for AW-RC400.etc):Approx. 3 m DC cable with ø 6.5 plug(for convertible cameras):Approx. 3 m

** The value vary depending on the region.

* Models manufactured before March 2008 require upgrading. For details, please contact a sales outlet.



(Rear View)

Multi-function Controller AW-RP655*

Delivers highly sensitive pan-tilt and full camera control.

Controls up to five cameras and pan-tilt heads. Using the camera menu lets you control settings and picture quality. There's also preset memory for up to 50 positions for each camera, plus 10 tracing memories with a total memory time of 300 seconds.

Up to two controllers can be connected to enable operation from multiple control rooms.

● Power Supply AW-PS505A is required.

Power supply	DC12 V
Power consumption	Approx. 9.0 W
Dimensions(W x H x D)	420 mm x 52 mm x 220 mm
Weight	Approx. 3.5 kg
Accessories	Rack mounting adapters(5U) x 2, Mounting screws(M4 x 8 mm) x 4

Remote Operation Panel AW-CB400*

Enables full control of up to five cameras.

Tally/Intercom functions. Providing full camera control, this compact unit enables easy access to a wide range of camera setting.

● Power is supplied by the AW-RP400.

Power supply	DC12 V
Power consumption	Approx. 3.8 W
Dimensions(W x H x D)	100 mm x 85 mm x 266 mm
Weight	Approx. 1.4 kg
Accessories	Pan-tilt controller(AW-RP400) connection cable(10 m)

Protocol Converter AW-IF400



(Rear View)

Using an AW-RP400 enables operation of AW-HE100 pan-tilt head units (Maximum range of operation: 1 500 m)

● Power Supply AW-PS505A is required.

Power supply	DC12 V
Power consumption	Approx. 1.5 W
Dimensions(W x H x D)	145 mm x 30 mm x 85 mm
Weight	Approx. 0.4 kg

Feature Cards

SDI Outputs AW-HHD100

Add two HD/SD-SDI outputs by placing mounts in the expansion slot of the AW-HE100.

● Go to the main unit's menu to switch between SD/HD.

Dimensions(W x H x D)	159 mm x 27 mm x 111 mm
Weight	Approx. 0.23 kg



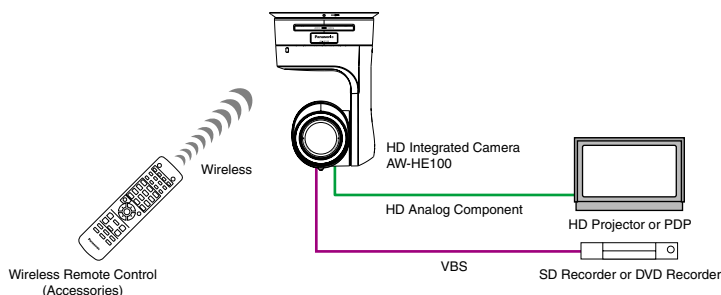
Ready for applications ranging from a simple system using the supplied remote control to a large-scale system.

Simple system ①

Taking advantage of the AW-HE100's ability to simultaneously output HD and SD video signals, when shooting at event venues you can provide live coverage with HD quality images at the venue while making an SD quality recording.

HD Integrated Camera AW-HE100 1
HD Projector or PDP 1
SD Recorder or DVD Recorder 1

— HD Analog Component — VBS

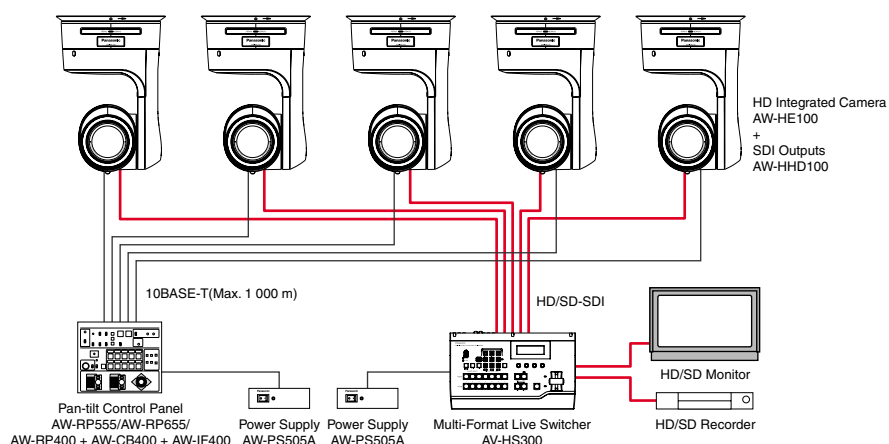


Simple system ②

Using multiple AW-HE100 units lets you shoot and record in both HD and SD quality. You can also shoot from various angles to match the subject being recording.

HD Integrated Camera AW-HE100 5
SDI Outputs AW-HHD100 5
Pan-tilt Control Panel AW-RP555 1
Multi-Format Live Switcher AV-HS300 1
Power Supply AW-PS505A 2
HD/SD Monitor 1
HD/SD Recorder 1

— 10BASE-T cable — HD/SD-SDI

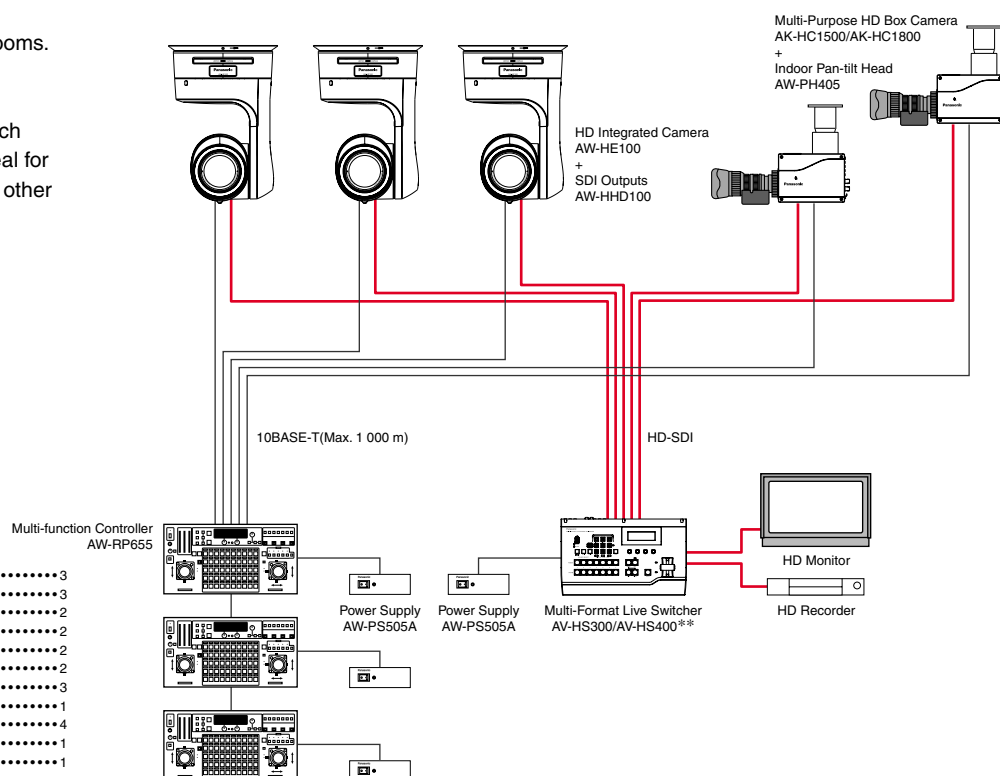


HD camera system

You can also enjoy coordinated operation from multiple control rooms. And when used with controllers providing preset memory for a maximum of 50 positions* for each camera, AW-HE100 units are ideal for shooting in conference halls and other large venues.

HD Integrated Camera AW-HE100 3
SDI Outputs AW-HHD100 3
Multi-Purpose HD Box Camera AK-HC1500 2
20x HD Zoom Lens AK-LZ20M85 2
Pan-tilt Control Cable AW-CA15H29 2
Indoor Pan-tilt Head AW-PH405 2
Multi-function Controller AW-RP655 3
Multi-Format Live Switcher AV-HS300 1
Power Supply AW-PS505A 4
HD Monitor 1
HD Recorder 1

— 10BASE-T cable — HD-SDI



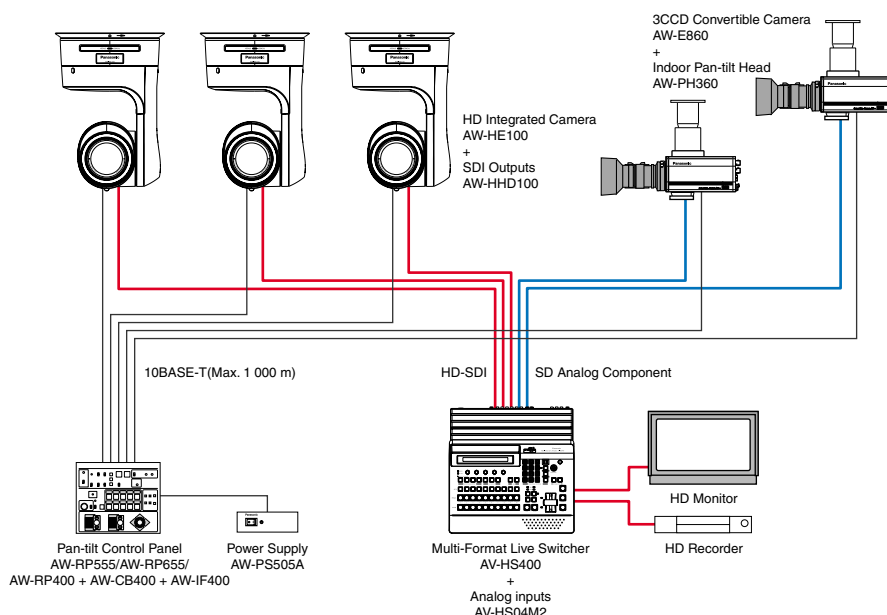
* The number of preset memory positions will differ depending on the controller.
** Use together with the AV-HS04M1 if you use the AV-HS400. The AV-HS400 does not require the AW-PS505A.

Mixed HD/SD system

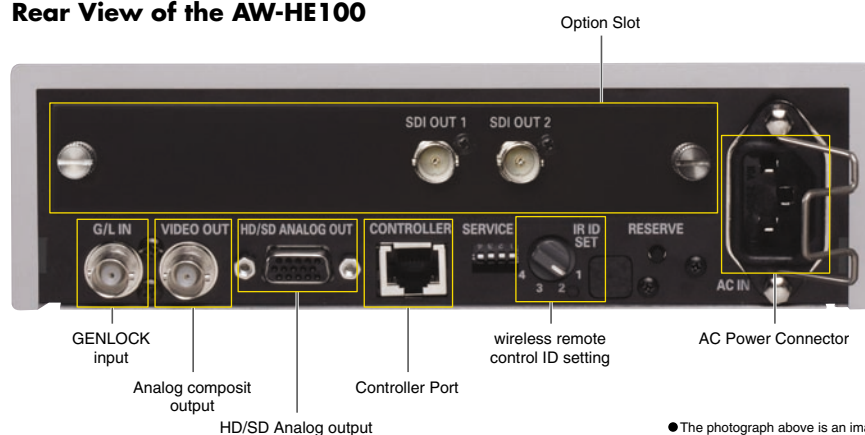
A mixed HD/SD system can be created that incorporates AW-HE100 units used mostly for short-range shots, and convertible cameras for mid- to long-range shots.

HD Integrated Camera AW-HE100	3
SDI Outputs AW-HHD100	3
3CCD Convertible Camera AW-E860	2
20x MD Zoom Lens AW-LZ17MD9A	2
Indoor Pan-tilt Head AW-PH360	2
Power Supply AW-PH300A	2
Pan-tilt Control Panel AW-RP555	1
Power Supply AW-PS505A	1
Multi-Format Live Switcher AV-HS400	1
Analog inputs AV-HS04M2	1
HD Monitor	1
HD Recorder	1

10BASE-T cable	HD/SD-SDI
SD Analog Component	



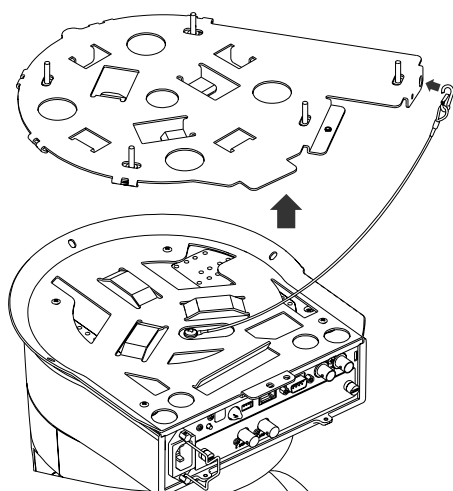
Rear View of the AW-HE100



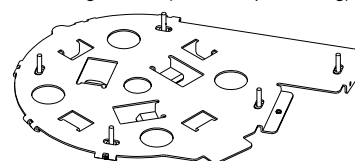
● The photograph above is an image with the SDI Outputs AW-HHD100 added.

Optimal for both hanging and desktop installation

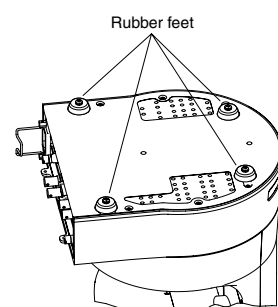
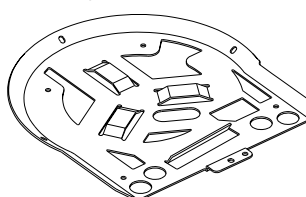
The AW-HE100 comes standardly equipped with mounting brackets and a drop-prevention wire necessary for installation on ceilings.



■ Mounting bracket (for tabletop or ceiling)



■ Mounting bracket (for main unit)



If you remove the mounting bracket (for main unit) and attach the rubber feet on the body, you can install the AW-HE100 on the floor and on desktops.

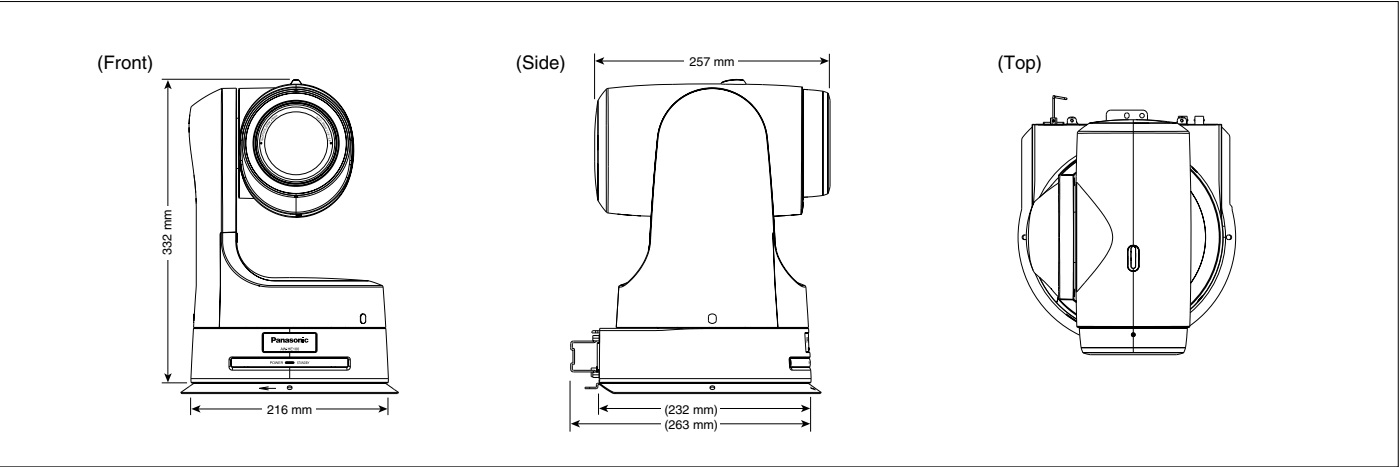
- The mounting bracket (for main unit) and drop-prevention wire are attached on the unit before shipment.
- Refer all servicing to qualified service personnel.

● AW-HE100 Main Specifications

Camera		
Image Elements		1/3-inch interline 3CCD (progressive compatible)
Lens		Power 13x zoom, F1.6-2.8 (f=4.2 mm to 55 mm, 35 mm equivalent: 32.5 mm to 423 mm)
Focus		Auto/Manual switchable
Optical Color Separation		Prism system
Gain Selection		0 dB to 12 dB in steps, 15 dB, 18 dB, AGC
Shutter Speed		1/120, 1/250, 1/500, 1/1000, 1/2000, Syncro-scan (50.0 Hz to 250.0 Hz)
Gamma		Low, mid, high
White Balance		AWC A, AWC B, ATW, 3 200 K, 5 600 K
Black Balance		Auto
Variable Chroma Levels		7 levels
Scene Files		Halogen light, fluorescent light, daylight, user
Color Bar		Full-Bar
Output Format		1080/50i, 720/50p, 576/50i, 576/25psF
Video Output*	Composite	1.0 Vp-p/75 Ω (BNC x 1)
	Y/C	Y: 1.0 Vp-p/75 Ω , C: 0.3 Vp-p/75 Ω (Burst) (VGA 15P x 1)
	Y/Pr/Pb**	Y: 1.0 Vp-p/75 Ω , Pr/Pb: 0.525 Vp-p(SD)/75 Ω (VGA 15P x 1)
Synchronization System		Internal/External synchronization, BBS or VBS
Pan-tilt Mechanism		
Camera/ pan-tilt head Control	Control cable	10BASE-T straight cable (UTP category 5), max. 1000 m (control only***)
	Protocol	RS-422 (Panasonic AW series protocol)
Rotation Speed		Over 60 °/s
Rotation Range		Pan: over ±175 °, tilt: over +210 ° to -40 °
Noise		NC35 (at 60 °/s in motion), NC30 (at 30 °/s in motion)
Stop Accuracy		±3' (0.05 °)
Operating Temperature		0 °C to +40 °C
Storage Temperature		-20 °C to +50 °C
Power		AC220 V to 240 V
Power Consumption		Approx. 40 W
Dimensions (W x H x D)		216 mm x 332 mm x 257 mm (excluding protrusions and mounting brackets)
Weight		Approx. 7.0 kg (without options and mounting brackets)
Standard Accessories		Wireless remote control, power cable (for UK & other country 1each), mounting bracket (for tabletop or ceiling), mounting bracket (for main unit), drop-prevention wire, cable cover, mounting screws, rubber feet (with mounting screws)
Wireless Remote Functions		Select camera (1 to 4), switch camera power (on/standby), open camera menu, switch modes, set AWC/ABC, switch gain, switch options, call preset (1 to 12), set preset/limit, pan-tilt operation, back to home position, zoom operation, focus operation, iris operation, switch focus mode, switch iris mode, adjust speed (pan/tilt/zoom/focus/iris/call preset)

* SETUP may be selected for composite or Y/C outputs only.
** With Y/Pr/Pb, the output format will change between 1080i/720p/SD(576i/576psF) depending on the format settings. With SD, you can select Y/Pr/Pb or Y/C from component setting.
*** To extend video signal, you will need additional external equipment.

● Dimensions



Panasonic

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